65(Twice Amended). In a microprocessor integrated circuit, a method for clocking the microprocessor within the integrated circuit, comprising the steps of:

providing a ring oscillator system clock [having a plurality] constructed of [transistors] electronic devices within the integrated circuit, said [plurality of transistors] electronic devices having operating characteristics [disposed to] which will, because said ring oscillator system clock and said microprocessor are located within the same integrated circuit, vary [similarly to] together with operating characteristics of [transistors] electronic devices included within the microprocessor; and

using the ring oscillator system clock for clocking the microprocessor, said [central processing unit] microprocessor operating at a variable processing frequency dependent upon a variable speed of said ring oscillator system clock.

66(Twice Amended). The method of Claim 65 additionally comprising the steps of:

providing an input/output interface for the microprocessor integrated circuit, and

clocking the input/output interface with a second clock independent of the ring oscillator system clock[, and

buffering information within said input/output interface received from said microprocessor integrated circuit].

72(Amended). The method of claim 65 further including the [steps] step of:

transferring information to and from said microprocessor in synchrony with said ring oscillator system clock[, and

buffering said information to facilitate transfer of said information to and from system memory synchronously with respect to said ring oscillator system clock].

73(Amended). A microprocessor system comprising:

a central processing unit disposed upon [a] an integrated circuit substrate, said central processing unit operating at a processing frequency and [including] constructed of a first plurality of [transistors] electronic devices;

an oscillator disposed upon said integrated circuit substrate and connected to said central processing unit, said oscillator clocking said central processing unit at a clock rate and including a second plurality of [transistors] electronic devices, thus varying the [designed such that] operating characteristics of said first plurality and said second plurality of transistors [vary] in the same way as a function of parameter variation in one or more fabrication or operational parameters associated with said integrated circuit substrate, thereby enabling said processing frequency to track said clock rate in response to said parameter variation.

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3 74(Amended). The microprocessor system of claim 73 wherein said one or more operational parameters [are included within the set consisting of:] include operating temperature of said substrate[,] or operating voltage of said substrate[, and fabrication process of said substrate].

Sub E4 C 4 78(Amended). In a microprocessor system including a central processing unit, a method for clocking said central processing unit comprising the steps of:

providing said central processing unit upon [a] an integrated circuit substrate, said central processing unit [including] being constructed of a first plurality of transistors and being operative at a processing frequency;

providing a variable speed clock disposed upon said integrated circuit substrate, said variable speed clock being constructed of a second plurality of transistors; and

clocking said central processing unit at a clock rate using [an oscillator, disposed upon said substrate, said oscillator being provided so as include a second plurality of transistors] variable speed clock with said central processing unit being clocked by said [oscillator] variable speed clock at a variable frequency dependent upon variation in one or more fabrication or operational parameters associated with said integrated circuit substrate, said processing frequency and said clock rate varying in the same way relative to said variation in said one or more fabrication or operational parameters associated with said integrated circuit substrate.

Cancel claim 71.

REMARKS

Appreciation is expressed for the courteous and helpful telephone interview granted by the Examiner on January 7 and 8, 1997, with the undersigned attorney and Mr. George Shaw, representing the assignee of the application. The above changes to the claims are based on the discussion in the interview. Proposed changes to claims 19, 65 and 73 were sent by facsmile to the Examiner on January 7 to facilitate the further discussion on January 8. On January 8, the Examiner agreed that these changes merited further consideration of the application and appeared to overcome the prior art of record. The following remarks in part summarize the discussion in the interview and respond to specific points in the Final Rejection.

In the interview, the fact that operating characteristics of electronic devices in an integrated circuit will track one another depending on variations in the manufacturing process used to make the integrated circuit was discussed. This fact is described at page 31, line 1 through page 32, line 1 of this application, in the context of the microprocessor system of this invention. This fact is utilized in the present invention to provide a variable speed clock for the microprocessor, with the

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